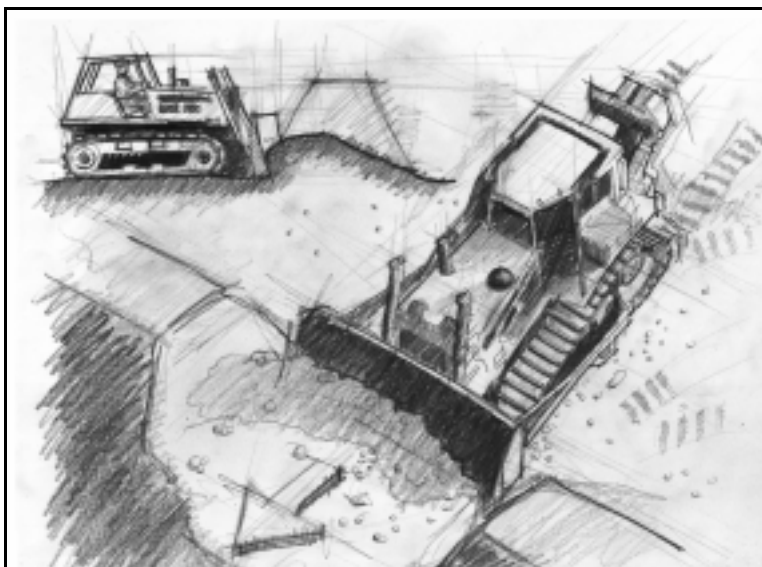


BUREAU OF WATER

Closeout of Wastewater Treatment Systems

A guide to the approval process for closing out wastewater treatment and disposal systems



July 1998



South Carolina Department of Health
and Environmental Control

Preface

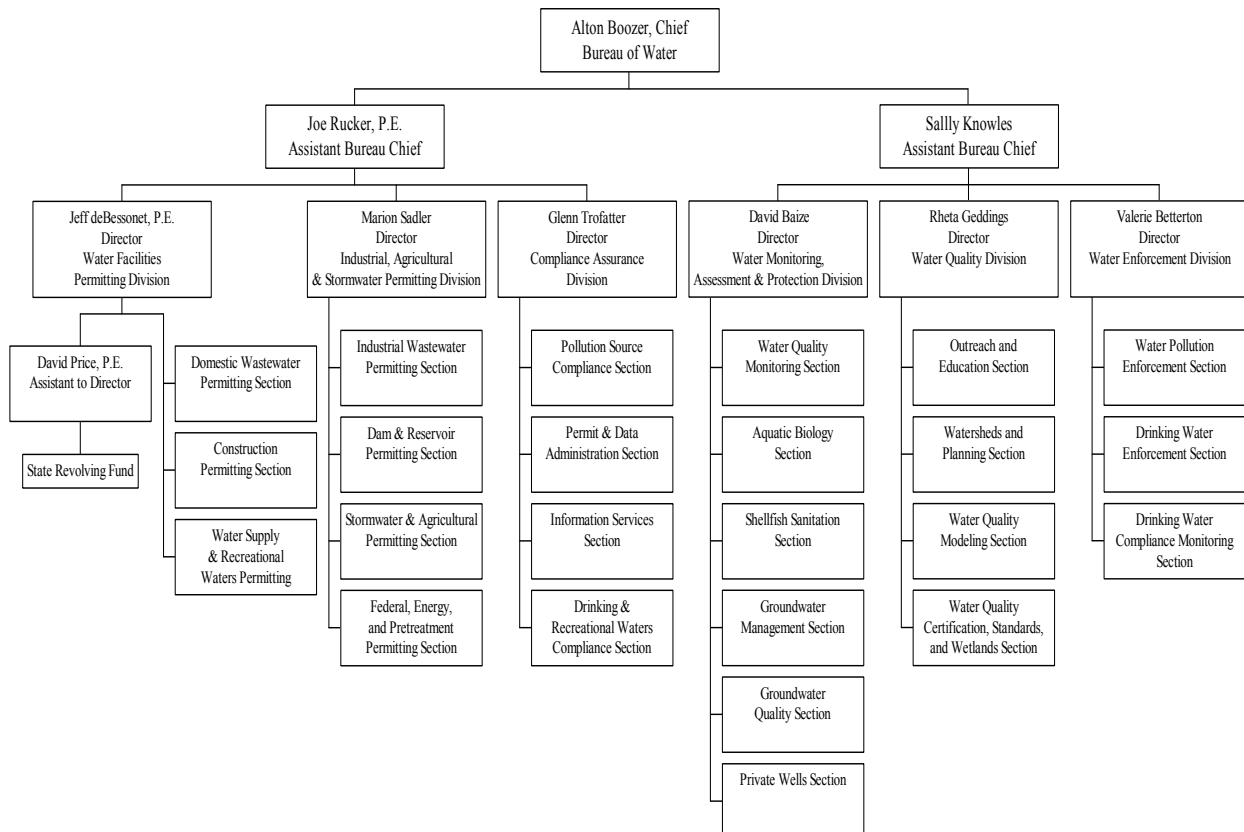
This document has been prepared for use by consulting engineers, developers, industries, and public entities dealing with the Bureau of Water on closeouts of wastewater treatment systems. It provides:

- ☞ An overview of the Bureau's responsibilities,
- ☞ A summary of regulatory requirements,
- ☞ Identification of the entities involved in closeouts, and
- ☞ Highlights of the review and approval procedures.

We hope this document will help everyone have a better understanding of the wastewater treatment system closeout program. Through this understanding, we feel it will be easier to go through the administrative processes, technical reviews, and approval processes of the Bureau.

This document provides an explanation of the Bureau's decision making processes. Our decisions are made based on the technical, administrative, and legal aspects of closeouts of wastewater treatment and disposal systems with the protection of the environment and public health as the major considerations.

The Bureau is committed to providing quality service in a reasonable time in all aspects of the permit programs. To do this, we need the cooperation of all parties who deal with us in recognizing our responsibilities and the manner in which we implement them. Therefore, please take the time to read this document carefully. This document is not a replacement for the regulations on wastewater treatment system closeouts but rather supplements the regulations. If you have any questions about our wastewater treatment system closeout program, please let us know. We welcome any comments you may have on this document or suggestions on how we can improve our service to you and the public.



Why?



Why are approvals needed for wastewater treatment system closeouts?



They are required by state law/regulations. DHEC's review ensures those closed wastewater systems are properly closed out for the protection of public health and the environment.

The Pollution Control Act (PCA) of SC, Title 48 of the 1976 Code of Laws as amended, in Section 48-1-20 declares the public policy of the State. The public policy is to maintain reasonable standards of purity of air and waters of the State while allowing for development of the state. This policy is to allow for maximum employment, protection of public health, and protection of terrestrial and marine flora and fauna. Also, physical property and other resources are to be protected. This responsibility requires that DHEC abate, control, and prevent pollution.

When a wastewater treatment plant (WWTP) or a disposal site is taken out of service, it must be properly closed out. Regulation 61-82, entitled "Proper Closeout of Wastewater Treatment Facilities," gives the general requirements for the closeout of WWTPs. See Appendix 1 for this regulation.

Depending upon the nature of the wastewater treatment plant or disposal site and environmental problems that may exist at them, the Bureau may require cleanups of surface water, ground water, and soil. Also, sludge disposal and continued monitoring of surface and ground water may be required.

Where?



Where do I apply for closeout approval?



*DHEC's Bureau of Water is responsible for approval of closeouts on wastewater treatment systems:
2600 Bull Street, Columbia, SC 29201*

The Bureau of Water (Bureau) is under the Office of Environmental Quality Control (EQC) of DHEC. The Bureau is responsible for protecting the quality of the State's surface and ground water and ensuring safe drinking water for the public. To meet this responsibility, the Bureau issues permits, approvals, and certifications for a variety of wastewater and drinking water projects. This booklet explains the approval procedures of the Bureau for closeouts of wastewater treatment systems.

Two divisions of the Bureau of Water are responsible for approval of closeout reports on wastewater treatment systems:

- ⇒ Water Facilities Permitting Division
- ⇒ Industrial, Agricultural, and Storm Water Permitting Division

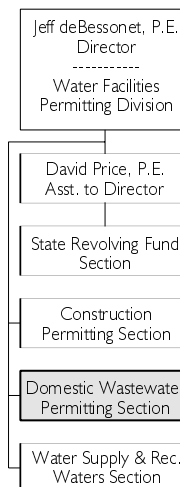
The project owner and the type of project (e.g., subdivision, federal facility, etc.) determine which division handles a particular project.

BUREAU OF WATER:

Water Facilities Permitting Division

The Water Facilities Permitting Division handles closeout reports for publicly and privately-owned wastewater treatment systems not categorized as industrial. Closeout reports on these wastewater treatment systems are handled by the *Domestic Wastewater Permitting Section* of the Division.

Wastewater treatment system projects handled by this Section include the following:



CLOSEOUT OF WASTEWATER TREATMENT SYSTEMS

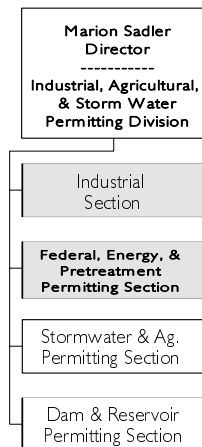
- | | |
|-----------------------------|---------------------------------|
| 1. Subdivisions | 12. Hotels and Motels |
| 2. Apartments | 13. Office Parks |
| 3. Condominiums | 14. Stadiums |
| 4. Trailer Parks | 15. Retail Stores and Malls |
| 5. Camp Grounds | 16. Fairgrounds |
| 6. Restaurants | 17. Parks |
| 7. Health Care Facilities | 18. Schools |
| 8. Highway Rest Fac. | 19. Country Clubs |
| 9. Churches | 20. Municipal-owned Sewer Lines |
| 10. Prison Facilities | 21. Any Other Type Project Not |
| 11. Private Sewer Utilities | Categorized As Industrial |

BUREAU OF WATER: Industrial, Agricultural & Storm Water Permitting Division

The Industrial, Agricultural, and Storm Water Permitting Division handles closeout reports on wastewater treatment systems for industries, federal facilities, and agricultural operations. This Division has three (3) sections that permit these projects:

- ⇒ Industrial Section,
- ⇒ Federal/Energy/Pretreatment Permitting Section, and
- ⇒ Storm Water & Ag Permitting Section.

The *Industrial Section* handles closeout reports for industrial facilities even if the wastewater is strictly domestic waste. Manufacturing plants, car washes, laundromats, abattoirs, truck stops, funeral homes, and gas stations are included in the Industrial Section's responsibilities. The *Federal/Energy/Pretreatment Permitting Section* handles closeout reports on wastewater treatment facilities at federally-owned and operated facilities, energy facilities (power plants), mining projects, and industrial pretreatment facilities. The *Storm Water and Agricultural Permitting Section* handles approval of closeout reports on agricultural wastewater treatment facilities.



Others Involved in the Permitting Process

Other program areas of DHEC may be involved in the approval of closeout reports on wastewater treatment systems. The Bureau will coordinate with these program areas by providing basic information on the project to them. If these program areas need more information, they will request it from the consulting engineer. During the review of a project, the Bureau will notify the consulting engineer concerning other program areas.

Normally, approval of a closeout report will not be given until all the certifications, comments, and permits are received from the other program areas. Therefore, at the start of a project, the consulting engineer should contact the other program areas involved in the project. This will help avoid any delays in the Bureau's approval process.

The following are the program areas that may be involved in the Bureau's program. Their type of involvement is given along with information concerning their requirements or permits.

EQC District Offices

The Bureau may request comments from the appropriate District Office of EQC. The District Office will provide information to the Bureau on the proposed closeout of a wastewater treatment or disposal system. Also, written final approvals for completed closeouts are granted by the District Offices. Please see Appendix 2 for a list of the District Offices, the counties for which each is responsible, their telephone numbers, and their addresses.

EQC's Bureau of Land and Waste Management

Disposal of sludge that is hazardous must be approved by the Bureau of Land and Waste Management. Therefore, any sludge or similar material must be properly characterized to determine whether it is hazardous. The Bureau will require approval from the Bureau of Land and Waste Management on the method of hazardous material disposal prior to approval of a wastewater treatment facility closeout report.

Related Permits

Closeouts of wastewater treatment systems may also require other DHEC approvals/permits. If you are unclear, contact our office. Other permitting functions may include:

- ☞ Sediment and erosion control permit,
- ☞ NPDES storm water construction activity permit,

Regarding NPDES storm water, most projects can be covered under a general permit issued by DHEC. To streamline permitting, application for the sediment and erosion control permit serves as a notice of intent to get coverage under the NPDES storm water construction activity permit.

How?



How do I apply for approval?



The application package consists of a closeout report, a transmittal letter explaining the submittal, and location maps.

For wastewater treatment facility and disposal site closeouts, a closeout report with supporting documentation is submitted to the appropriate Section of the Bureau. Closeouts have two phases which are:

- ∞ Closeout Report, and
- ∞ Closeout Implementation and Final Approval.

Normally, there are no public notice requirements for closeout reports. However, depending on the problems encountered and the selected disposal method for sludge, effluent, or other material, the Bureau may public notice the closeout and disposal of these residuals.

Closeout reports should be submitted at least six (6) months prior to the date the approval is needed. The actual time may be shorter or longer. This will depend upon the complexity of the project and the workload of the Bureau when the project is submitted.

Phase I: Closeout Report

a. Submittal Package

A complete administrative package must be submitted. The submittal package must include the information in the following box.

Submittal Information

1. A transmittal letter outlining the submittal package.
2. Three (3) copies of the closeout report.
3. Three (3) copies of an 8 ½" X 11" location map.

For lagoon systems and other systems with sludge disposal concerns, specific details on sludge disposal and ground water monitoring should be included in the closeout report. A toxicity characteristic leaching procedure (TCLP) test must be performed on all sludges to identify suitable disposal methods. Sludge removal and disposal may also require approval from the Bureau of Land and Waste Management of EQC.

For nonhazardous domestic sludges including industrial facilities that treat only sanitary wastewater, Regulation 61-9 will likely play a role in the approval process. If the permittee plans to leave the sludge in place (e.g., lagoon system), this may constitute surface disposal of sludge under Subpart C of 61-9.503. If so, it may be more cost-effective to remove the sludge for disposal or beneficial use. You should consult with the Domestic Wastewater Permitting Section or the Industrial Section for assistance in evaluating the feasibility of beneficial use of the sludge.

Also, closure plans that propose ground water monitoring must include a ground water monitoring plan for review and approval.

For closeouts of municipal and private utility WWTPs and disposal sites, the report on the closeout will be sent to the Water Facilities Permitting Division at the Bureau address given below. For agricultural and industrial WWTPs and disposal sites, the closeout report will be submitted to the Industrial, Agricultural, and Storm Water Permitting Division at the Bureau address given below:

*Bureau of Water
2600 Bull Street
Columbia, SC 29201*

If the submittal of a closeout report is required as part of an NPDES or ND permit's schedule of compliance, a copy of the transmittal letter should be sent to the Bureau's Water Enforcement Division.

b. Processing

The review of closeout projects will normally be on a "first come/first serve" basis by each program area. Therefore, closeout reports will be reviewed in chronological order based on the date the complete package is received. Upon receipt of a complete package, the project will be placed in line for technical review. For submittals missing certain administrative items, a letter will be sent out noting the deficiency.

For a complete submittal package, the requests for comments from the other program areas involved in the permitting process will be sent when the project is initially received. These requests will be sent to the appropriate District Office of EQC and the Bureau of Land and Waste Management if disposal of hazardous material is required.

c. Plan Review

When a project is assigned to a Department engineer, it will be reviewed on a technical and administrative basis. The administrative review will involve ensuring the Bureau coordinates with the appropriate program areas.

The technical review will be conducted utilizing standard reference books commonly used in the field of wastewater collection and treatment as appropriate. The technical review will be to ensure the closeout has no adverse impact to the environment or public health.

Phase B: Closeout Implementation and Final Approval

After approval of a closeout report, the facility or site will be closed as outlined in the report. When the closeout is completed, the consulting engineer will send a letter to the District Office certifying the project has been completed according to the approved closeout report. The District Office will conduct a final inspection to verify the closeout has been satisfactorily completed. If the closeout is acceptable, a letter of approval will be written on the closeout. If the closeout is not acceptable, a copy of the inspection report or a letter will be sent to the consulting engineer. This letter or report will outline the problems with the closeout.

APPENDIX 1

Regulation 61-82. Proper Closeout of Wastewater Treatment Facilities

The following regulation is promulgated pursuant to Section 48-1-50 of the 1976 S.C. Code of Laws. If any section, sentence or phrase of this Regulation is declared unconstitutional or void for any reason, the remainder of this Regulation shall remain effective and shall not be affected thereby.

SECTION I: Definitions

The definition of any work or phrase employed in Section II, III, IV and V shall be the same as given in the S.C. Pollution Control Act. The following words or phrases, which are not defined in said law, shall be defined as follows:

1. Lagoon - Lagoon shall mean a relatively small body of water contained in an earthen basin or controlled shape which is designed for treatment or handling wastewater.
2. Package Plant - Package plant shall include prefabricated factory assembled units and other modular type units designed for the treatment of wastewater through activated sludge processes and modifications thereof. Although not generally considered a package plant, for the purpose of this Regulation, Imhoff tanks shall be considered a package plant.
3. Closeout - Closeout shall mean the cessation of waste treatment facility operations in accordance with the appropriate sections of this Regulation.
4. Abandonment - Abandonment shall mean the cessation of daily visits to the waste treatment facility by the certified operator in charge for the purpose of ensuring proper operation and maintenance of a waste treatment facility.
5. "Should" and "Shall" - Should is permissive and shall is mandatory.

SECTION II: Proper closeout of lagoons

1. Lagoons shall be drained only after written permission has been obtained from DHEC and in accordance with one of the below procedures, (procedures in order of decreasing desirability):
 - a. Sewage from the lagoon may be pumped into the treatment facility or receiving system replacing the lagoons, provided that the rate is such that hydraulic and/or organic overloading

- and surging of the replacement system is prevented and provided that permission is obtained from the owner of the replacement system; or
- b. If the above method is not possible, the lagoon may be drained into the receiving stream at a rate not exceeding the maximum design flow of the lagoon, provided that before draining, the lagoon is allowed to stabilize without additional inflowing sewage for a period not less than the design detention time of the lagoon.
2. In each of the above alternatives, the lagoon shall be drained from the surface of the lagoon to prevent accumulated solids on the bottom of the lagoon from being carried out of the lagoon.
 3. After the treated sewage has been drained from the lagoon, solid accumulation on the bottom of the lagoon shall be allowed to dry. A disinfectant suitable for control of odors and vectors shall be applied to all remaining solids when determined necessary by DHEC. After drying the solids should be mixed with soil and left on the bottom of the lagoon, be removed for disposal in an approved land fill, or disposed in some other approved method.
 4. The lagoon may be filled with soil or may be allowed to remain bowl shaped, so as to be utilized for purposes other than waste handling, i.e., fish ponds, irrigation ponds, etc., provided that this practice does not violate local health and vector control regulations and DHEC approval of the close-out is obtained prior to any alternative use of the facility.

SECTION III: Proper closeout of package plants

Package plants shall be drained in accordance with one of the following procedures:

- a. Sewage may be pumped into the treatment facility or receiving system replacing the package plant, provided that the rate is such that overloading of the replacement system is prevented and provided that permission is obtained from the owner of the replacement system; or
- b. Sewage may be pumped into portable tanks for transfer and disposal in a sewer system, provided that permission is obtained from the owner of the receiving system.

SECTION IV: Proper closeout of waste treatment facilities not defined as lagoons and package plants.

Waste treatment facilities not defined as lagoons and package plants shall be closed out in accordance with guidelines issued by DHEC on an individual basis. These guidelines shall be designed to prevent health hazards and to promote safety in and around the abandoned sites.

SECTION V: Procedures applicable to all closeouts

1. A request for site inspection for closeout shall be made by the responsible official to DHEC.
2. A site inspection shall be conducted by DHEC and authorization to proceed with closeout granted by DHEC.
3. Monitoring as deemed necessary by DHEC to prevent water quality violations or nuisance conditions will be established on a case-by-case basis and carried out in accordance with DHEC guidance.

APPENDIX 2

Offices for Approval of Closeout Completion

<i>DHEC District Offices of EQC</i>	
Appalachia I 2402 N. Main Street Anderson, SC 29621 864-260-5569 (fax: 260-4855) <i>Anderson and Oconee Counties</i>	Lower Savannah 218 Beaufort Street, NE Aiken, SC 29801 803-641-7670 (fax: 641-7675) <i>Aiken, Allendale, Bamberg, Barnwell, Calhoun and Orangeburg Counties</i>
Appalachia II 301 University Ridge, Suite 5800 Greenville, SC 29601 864-241-1090 (fax: 241-1092) <i>Greenville and Pickens Counties</i>	Pee Dee 145 E. Cheves Street Florence, SC 29506 803-661-4825 (fax: 661-4858) <i>Chesterfield, Darlington, Dillon, Florence, Marion and Marlboro Counties</i>
Appalachia III 975 N. Church Street Spartanburg, SC 29303 864-596-3800 (fax: 596-2136) <i>Cherokee, Spartanburg and Union Counties</i>	Trident 1362 McMillan Ave., Suite 300 Charleston, SC 29405 803-740-1590 (fax: 740-1595) <i>Berkeley, Charleston and Dorchester Counties</i>
Catawba P.O. Box 100 Fort Lawn, SC 29714 803-285-7461 (fax: 285-5594) <i>Chester, Lancaster and York Counties</i>	Upper Savannah 613 South Main Street Greenwood, SC 29646 864-223-0333 (fax: 223-6935) <i>Abbeville, Edgefield, Greenwood, Laurens, McCormick and Saluda Counties</i>
Central Midlands P.O. Box 156 State Park, SC 29147 803-935-7015 (fax: 935-6724) <i>Fairfield, Lexington, Newberry and Richland Counties</i>	Waccamaw 1705 Oak Street Plaza, Suite #2 Myrtle Beach, SC 29577 803-448-1902 (fax: 803-946-9390) <i>Georgetown, Horry and Williamsburg Counties</i>
Low Country 1313 Thirteenth Street Port Royal, SC 29935 803-522-9097 (fax: 522-8463) <i>Beaufort, Colleton, Hampton and Jasper Counties</i>	Wateree 105 Magnolia Street Sumter, SC 29151 803-778-1531 (fax: 773-6366) <i>Clarendon, Kershaw, Lee and Sumter Counties</i>